



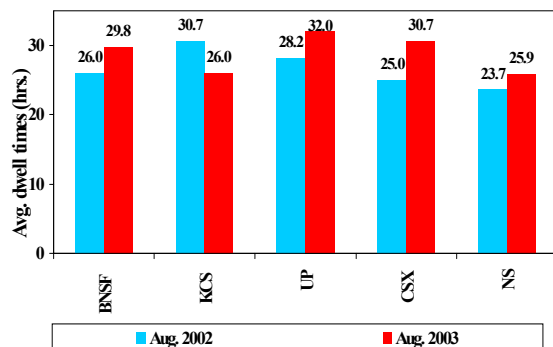
# GRAIN TRANSPORTATION REPORT

Transportation & Marketing, Agricultural Marketing Service  
United States Department of Agriculture

SEPTEMBER 11, 2003

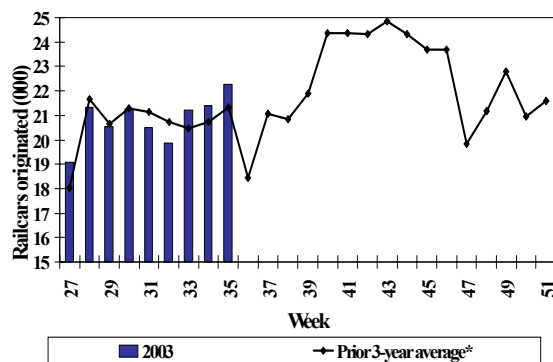
<u>TM GRAIN TRANSPORT COST</u> <u>INDICATORS</u>	<u>Ocean</u>				
	<u>Truck</u>	<u>Rail</u>	<u>Barge</u>	<u>Gulf</u>	<u>PNW</u>
Indicator Value* for 09/11	100	147	111	156	139
Compared to Last Week	↓	↓	↑	↑	↑
*Indicator: Base Year 2000=100; Weekly Updates include Truck=Diesel; Rail=Nearby Secondary Rail Market; Barge=Spot Illinois River Basis; Ocean Vessel based on Routes to Japan					

Figure 1: Rail terminal dwell times increase



Source: Association of American Railroads, Railroad Performance Measures

Figure 2: Rail grain traffic increases



Source: Association of American Railroads, Weekly Railroad Traffic  
(All U.S. Class I railroads excluding SOO and Illinois Central)  
\* Years 2000 through 2002

**Deteriorating railroad performance measures reduce railcar availability.** This summer, railcar cycle times increased because of increased terminal dwell times and decreased grain unit-train speeds. As cycle times increase, the number of railcars in storage decreases and, when no railcars are left in storage, grain hauling capacity is reduced. Except for Kansas City Southern (KCS), terminal dwell times have increased for all the major U.S. railroads (figure 1). August 2003 grain unit-train speeds, as compared to August 2002, have decreased 8 percent for Burlington Northern Santa Fe (BNSF), 7 percent for CSX Transportation (CSX), and 8 percent for Union Pacific (UP). Train speeds on Norfolk Southern (NS) and KCS have increased 4 and 17 percent respectively.

**Rail grain traffic increases.** Grain traffic has exceeded the 3-year average for each of the last 3 weeks (figure 2). Traffic has steadily increased during August and past trends, as well as projected crop production and exports, indicate it will continue to increase through November (figure 2). For the first 30 days of August, grain traffic on the eastern railroads increased 5.7 percent from last year and 9.8 percent from the 3-year average. Grain traffic on the western railroads for the first 30 days of August increased 6.3 percent from last year but decreased 1.1 percent from the 3-year average.

**Two new rail studies available.** "The Differential Effects of Rail Rate Deregulation: U.S. Corn, Wheat and Soybean Markets" and "The importance of Short Line Railroads to Rural and Agricultural America" are available on the web at <http://www.ams.usda.gov/tmd/tmpubs#L2>. Transportation and Marketing Programs funded these studies which were recently completed by Upper Great Plains Transportation Institute. [Marvin.Prater@usda.gov](mailto:Marvin.Prater@usda.gov).

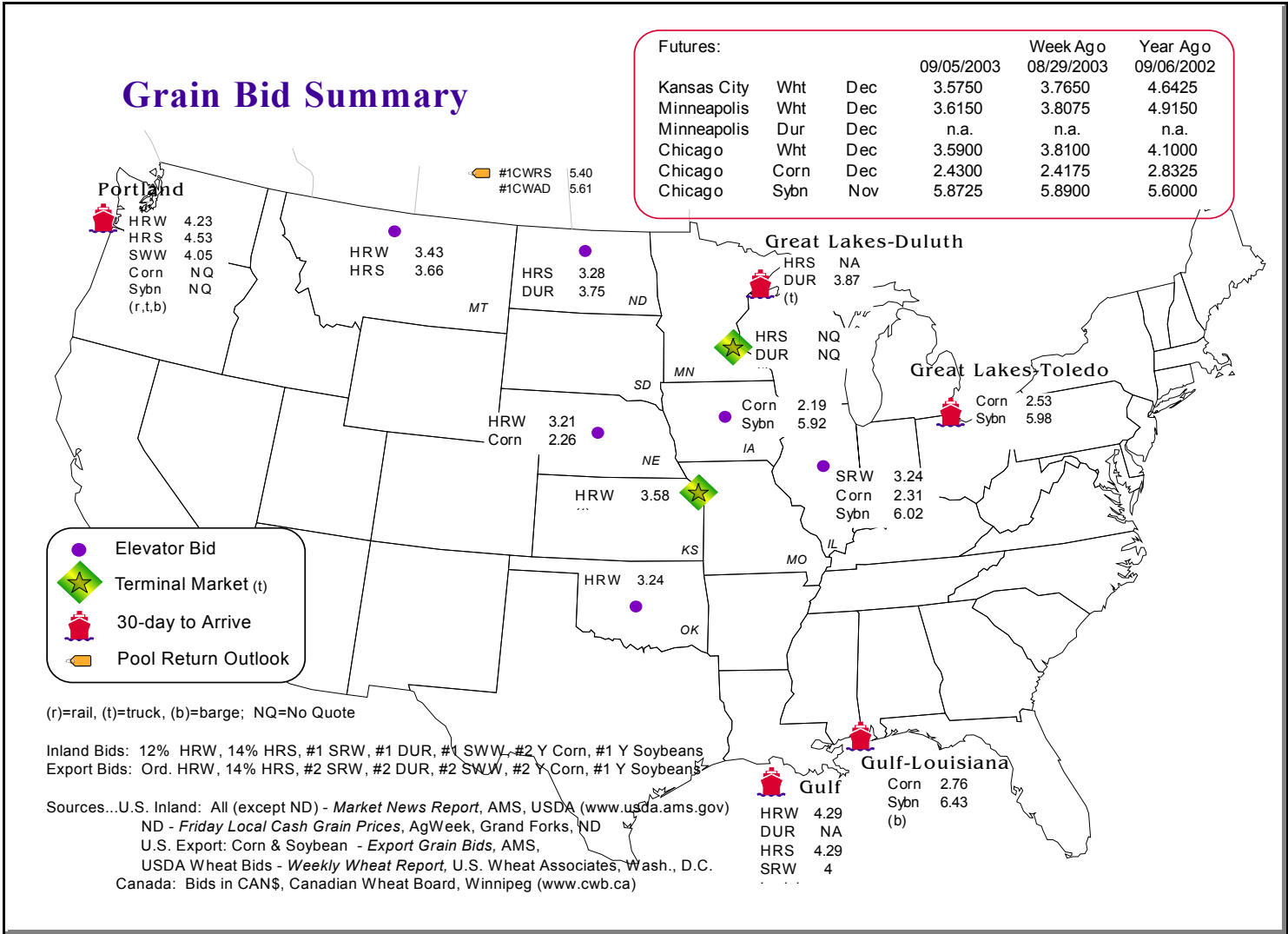
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The Grain Transportation Report is a weekly news source for grain logistics. Detailed data and trend information on five major modes: barge, truck, rail, container, and vessel, provide timely insight into grain transport. The report is offered to policymakers and industry as a tool in day-to-day decision making and longer-term strategic planning for an effective and efficient U.S. grain logistics system.

Market Update: U.S. Origins to Export Position Price Spreads (Per Bushel)

Commodity	Origin-- Destination	This week	Last week
Corn	IL -- Gulf	-0.45	-0.39
Corn	NE -- Gulf	-0.50	-0.53
Soybean	IA -- Gulf	-0.51	-0.39
HRW	KS -- Gulf	-0.71	-0.71
HRS	ND -- Portland	-1.25	-1.26

The **Grain Bid Summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

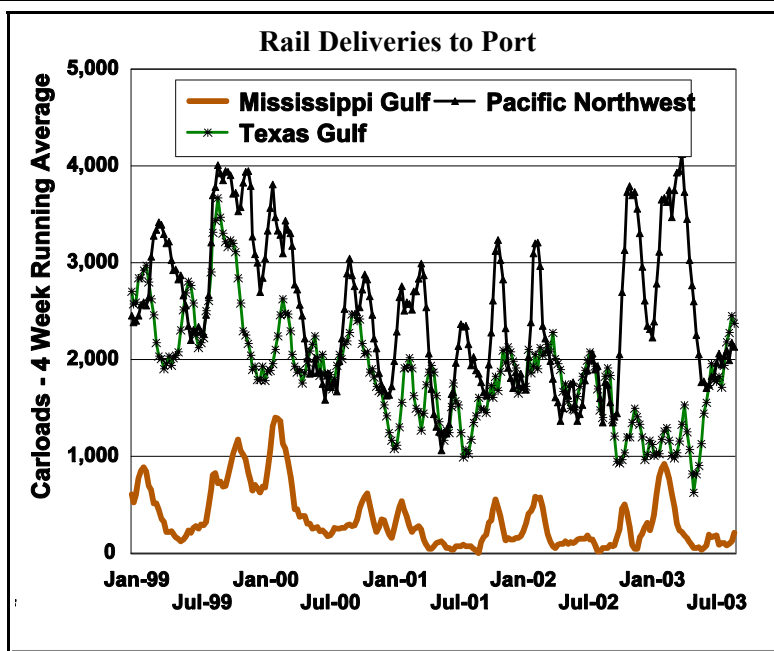
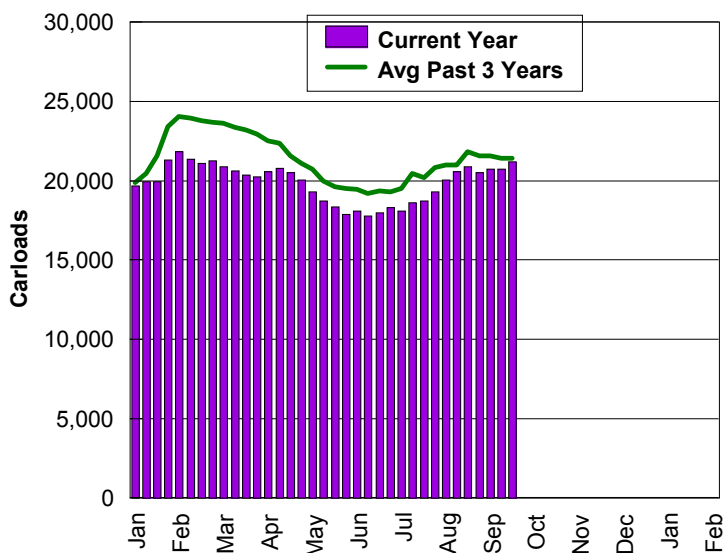


<b>RAIL TRANSPORTATION</b>
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**Rail Deliveries to Port (Carloads)**

	Mississippi Gulf*	Texas Gulf	Pacific Northwest	Atlantic & East Gulf	Total
Week Ending:					
08/27/03	209	2,577	2,307	189	5,282
09/03/03	480	1,971	2,284	100	4,835
YTD 2003	10,326	50,779	93,792	11,380	166,277
YTD 2002	7,300	65,734	68,252	15,317	156,603
% YTD 2002	141%	77%	137%	74%	106%
Total 2002	11,127	85,822	113,857	21,562	232,368
Total 2001	10,022	81,804	111,376	26,604	229,806

Source: Transportation &amp; Marketing/AMS/USDA; (\*) Incomplete Data

**Grain Car Loadings for Class I Railroads**

Railroads originate approximately 40% of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

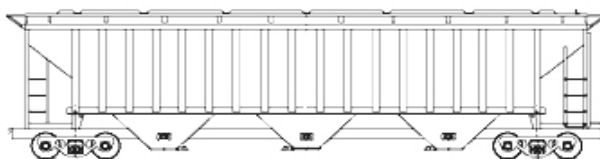
**Class I Rail Carrier Grain Car Bulletin** (Grain Carloads Originated and Grain Service Index)

	East		West			U.S. Total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
08/30/03	2,242	3,071	8,908	560	7,501	22,282	4,324	4,095
This Week Last Year	2,208	2,893	7,514	357	5,984	18,956	2,806	3,884
2003 YTD	95,222	112,537	255,299	13,858	226,686	703,602	120,860	125,252
2002 YTD	95,620	109,052	258,508	18,776	232,058	714,014	137,427	127,742
% of Last Year	100%	103%	99%	74%	98%	99%	88%	98%
2002 Total	142,760	164,745	400,179	27,161	344,296	1,079,141	191,835	195,765

**U.S. Rail Covered Hopper Cars Online Index\***

Aug-03	94.1	99.8	94.9	97.9	94.4	95.4
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Source: Association of American Railroads; \*Base Year =2001, Index based on Number of Covered Hopper Cars Online (available for Service).

**Tariff Rail Rates for Unit Train Shipments**

September 2003

Source: [www.bnsf.com](http://www.bnsf.com), approximate load per car = 100 tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu\*

Date Effective	Tariff Item	Commodity	Origin	Destination	Rate Per Car	Rate Per MT	Rate/Per Bushel*
09/02/03	113710	Wheat	Kansas City, MO	Galveston, TX	\$1,820	\$20.06	\$0.55
09/02/03	43521	Wheat	Minneapolis, MN	Portland, OR	\$4,148	\$45.72	\$1.24
09/02/03	46540	Wheat	St. Louis, MO	Houston, TX	\$1,945	\$21.44	\$0.58
09/02/03	113710	Wheat	Kansas City, MO	Laredo, TX	\$2,280	\$25.13	\$0.68
09/02/03	15507	Wheat	Chicago, IL	Albany, NY	\$1,834	\$20.22	\$0.55
09/02/03	31005	Corn	Minneapolis, MN	Portland, OR	\$3,130	\$34.50	\$0.88
09/02/03	1132.002	Corn	Chicago, IL	Baton Rouge, LA	\$2,736	\$30.16	\$0.77
09/02/03	1132.03	Corn	Council Bluffs, IA	Baton Rouge, LA	\$2,170	\$23.92	\$0.61
09/02/03	113210	Corn	Evansville, IN	Raleigh, NC	\$1,686	\$18.58	\$0.47
09/02/03	1132	Corn	Des Moines, IA	Laredo, TX	\$2,864	\$31.57	\$0.80
09/02/03	61110	Soybean	Minneapolis, MN	Portland, OR	\$3,110	\$34.28	\$0.93
09/02/03	1144	Soybeans	Chicago, IL	Baton Rouge, LA	\$2,736	\$30.16	\$0.82
09/02/03	1144	Soybeans	Council Bluffs, IA	Baton Rouge, LA	\$2,799	\$30.85	\$0.84
09/02/03	1144	Soybeans	Des Moines, IA	Laredo, TX	\$2,864	\$31.57	\$0.86
09/02/03	11441	Soybeans	Evansville, IN	Raleigh, NC	\$1,686	\$18.58	\$0.51

**Secondary Rail Car Market**

Average Premium/Discount to Tariff, \$/Car - Last Week

	Delivery Period			
	Oct-03	Nov-03	Dec-03	Jan-04
BNSF-GF	\$72	\$26	\$16	\$6
UP-Pool	\$30	\$14	\$11	\$5

Rail service may be ordered directly from the railroad via **Auction** for guaranteed service or tariff for non-guaranteed service, or through the secondary market. The **Secondary Rail Market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The auction and secondary rail values are indicators of rail service quality and

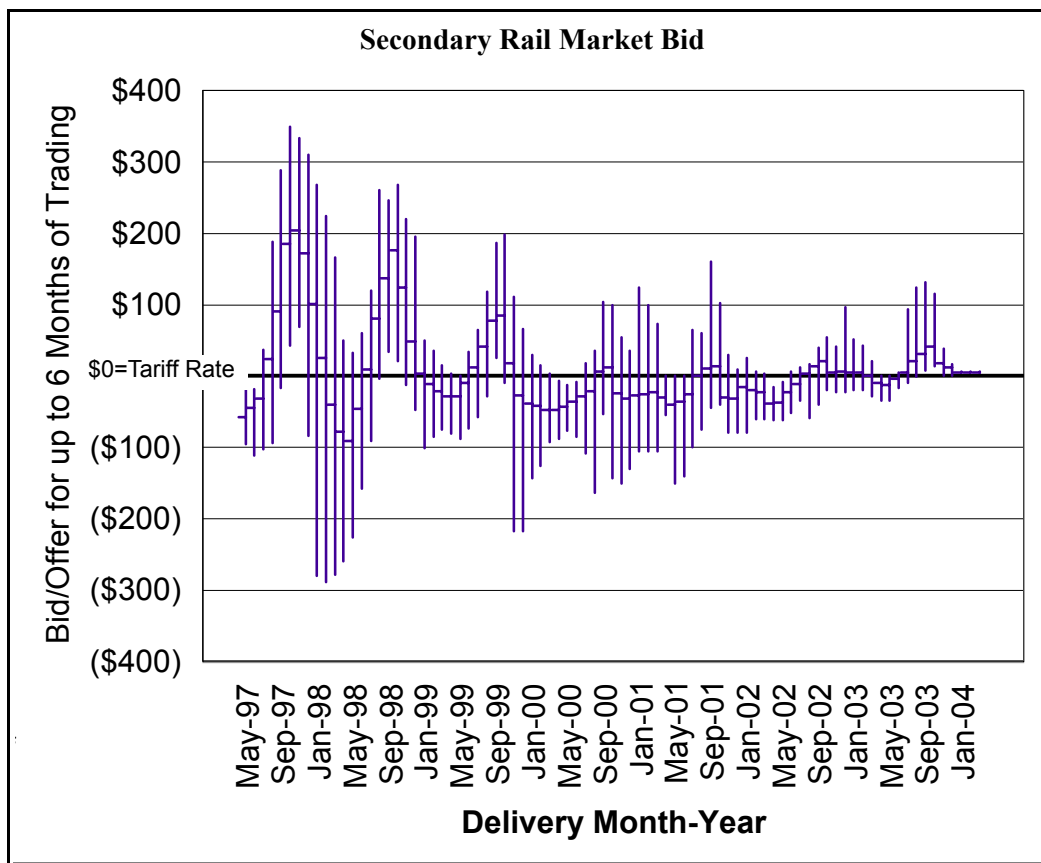
**Railroad Car 'Auction' Results**

Average Premium/Discount to Tariff, \$/Car - Last Auction

Delivery for:	Oct-03	Nov-03	Dec-03
COT/N. Grain	no bid	\$1	\$3
COT/S. Grain	no bid	no bid	no bid
GCAS/Region 1	\$1	no bid	no bid
GCAS/Region 2	\$1	no bid	\$1

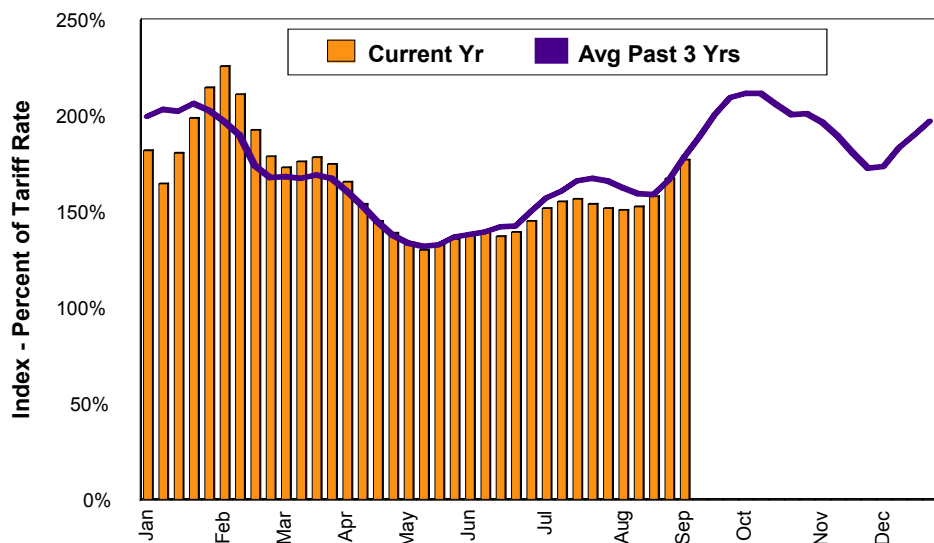
Source: Transportation &amp; Marketing/AMS/USDA.

COT=Certificate of Transportation; GCAS=Grain Car Allocation System



## BARGE TRANSPORTATION

### Illinois River Barge Rate Index - Rate Quotes



The **Illinois River Barge Rate Index** averaged 183% of the Benchmark Tariff Rate between 1999 and 2001, based on weekly market quotes. The **Index**, along with **Rate Quotes** and **Futures Market** bids are indicators of grain transport supply and demand.

Calculating **Barge Rate** Per Ton:  
 $\text{Index} \times 1976 \text{ Tariff Benchmark Rate per Ton}$

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map below.

### BARGE RATE QUOTES: Southbound Barge Freight Index=Percent of Tariff, Based on 1976 Tariff Benchmark Rate

	9/3/03	8/27/03	Oct '03	Dec '03
Twin Cities	215	215	275	nq
Mid-Mississippi	207	206	260	nq
Illinois River	190	188	254	180
St. Louis	199	199	221	143
Lower Ohio	187	180	256	149
Cairo-Memphis	181	176	210	134

Source: Transportation & Marketing /AMS/USDA

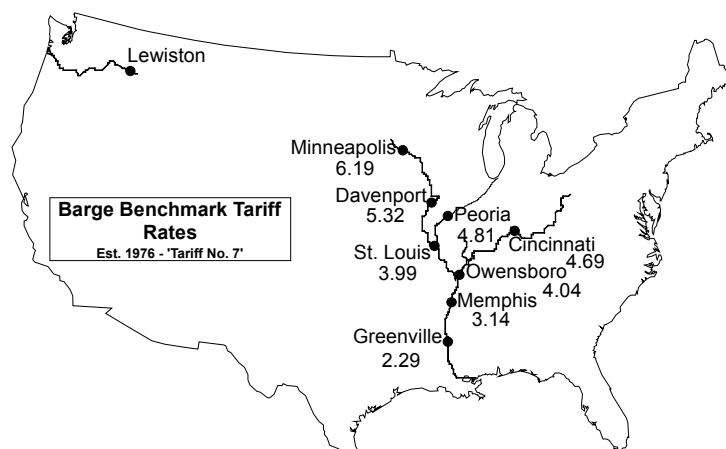
### BARGE FUTURES MARKET

#### Southbound Barge Freight Nominal/Cash Basis Values

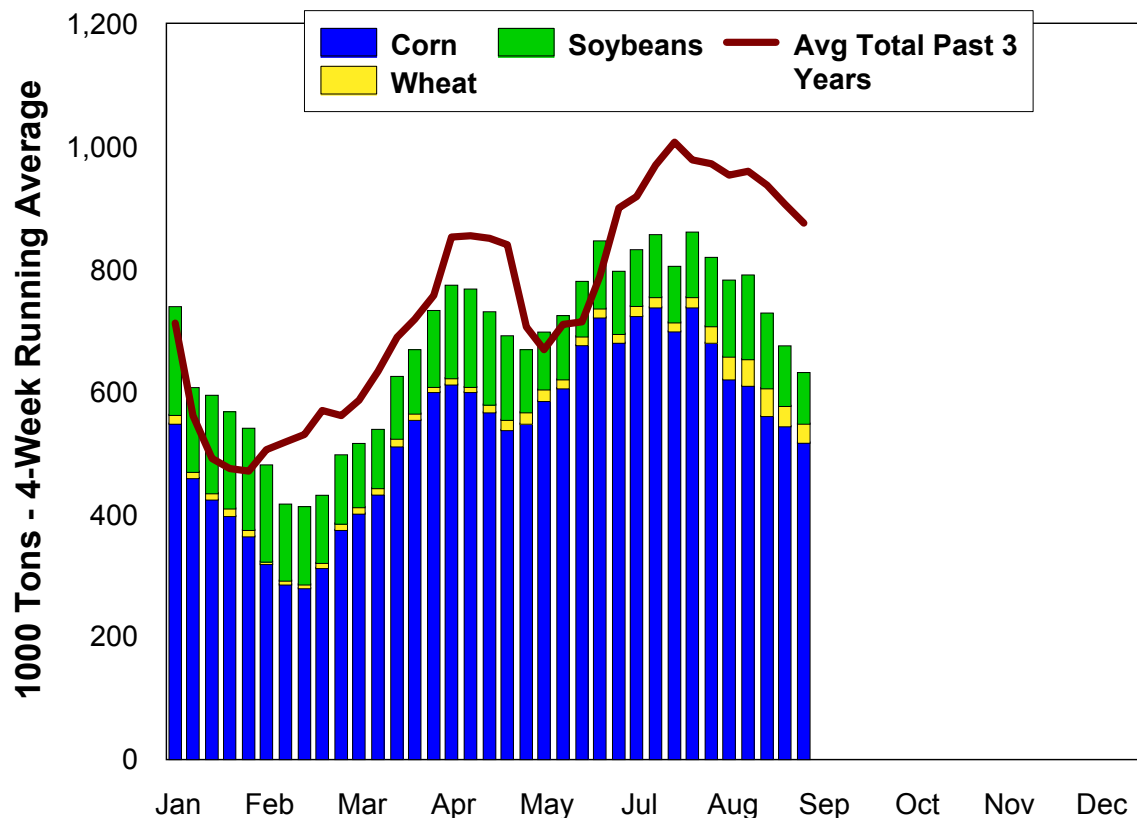
Index=Percent of Tariff, Based on 1976 Tariff Benchmark Rate

Week ended	River/Region	Contract Period	Rate	
			Futures	Cash
9/09/03	St. Louis	Sep.	n/a	200
		Nov.	n/a	170
		Jan.	n/a	140
		Feb.	n/a	140
	Illinois River	Mar.	n/a	140
		Sep.	n/a	190
		Nov.	n/a	200
		Jan.	n/a	205
		Feb.	n/a	185
		Mar.	n/a	170

Source: St. Louis Merchants Exchange



## Barge Movements on the Mississippi River (Lock 27)



## Barge Grain Movements (1,000 Tons)

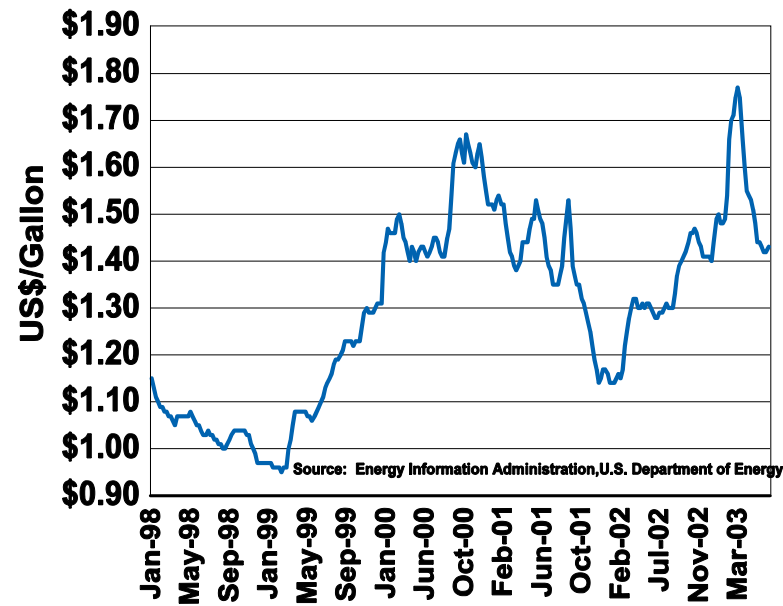
for week ending 8/30/03

	<u>Corn</u>	<u>Wht</u>	<u>Sybn</u>	<u>Total</u>
<b>Mississippi River</b>				
Rock Island, IL (L15)	207	24	11	251
Winfield, MO (L25)	373	38	61	475
Alton, IL (L26)	471	39	75	596
Granite City, IL (L27)	478	48	73	606
<b>Illinois River (L8)</b>	92	3	17	114
<b>Ohio River (L52)</b>	7	35	11	60
<b>Arkansas River (L1)</b>	0	56	3	59
2003 YTD	19,906	1,781	5,457	27,699
2002 YTD	24,477	1,739	6,928	34,267
% of 2002 YTD	82%	103%	79%	81%
Total 2001	31,878	2,679	10,616	47,091

Source: U.S. Army Corp of Engineers,  
YTD and Calendar year total includes Miss/27, Ohio/52 and Ark/1.

TRUCK TRANSPORTATION

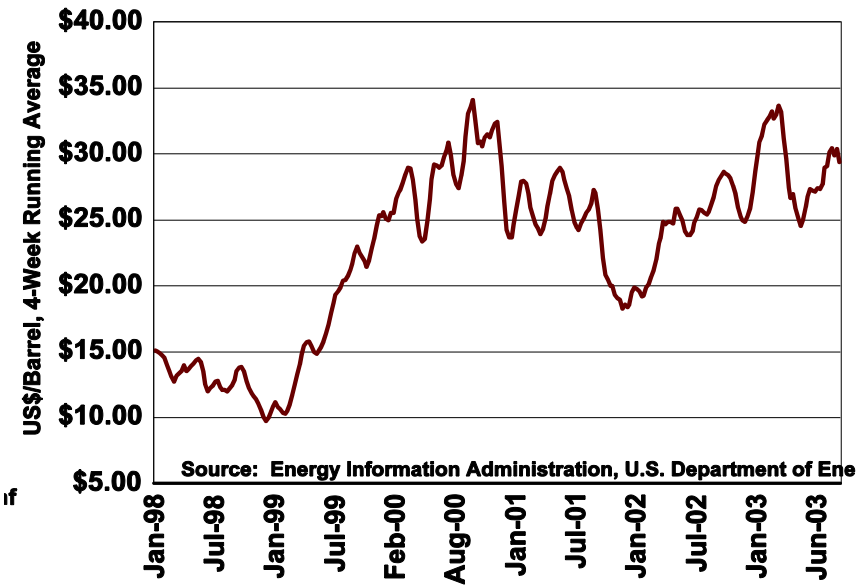
Weekly U.S. Retail Road Diesel Price



The weekly **Diesel Price** provides a proxy for trends in U.S truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37% of the estimated variable cost. **Crude Oil Price** is an indicator in future diesel price trends.

Weekly Brent Crude Price, Friday Close

Light Sweet Crude is exchanged on the New York Mercantile Exchange. North Sea oil has a "benchmark" role in crude oil pricing. Brent crude, a blend of North Sea oils, is traded on the International Petroleum Exchange in London.



Crude Oil Prices (09/09/03)			
US\$ per Barrel	This Week	Last Week	
Light Sweet Crude (NYMEX)	28.98	31.56	↓
Brent Crude	27.52	30.22	↓

Source: [www.eia.doe.gov](http://www.eia.doe.gov); \*U.S. Refiner Crude Acquisition Cost, Composite Domestic & Import



<b>GRAIN EXPORTS</b>
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U.S. Export Balances (1,000 Metric Tons)									
	W h e a t			C o r n *			S o y b e a n *		Total
	HRW	SRW	HRS	SW W	DUR	All			
08/28/2003	2,375	565	1,324	655	166	5,085	7,463	8,015	20,563
This Week Year Ago	1,246	327	1,236	597	90	3,495	2,082	494	6,071
Commulative Exports-Crop Year									
03/04 YTD	2,836	952	1,492	844	232	6,355	39,646	28,908	74,909
02/03 YTD	2,320	867	1,534	895	258	5,873	47,460	29,838	83,171
01/02 Total	8,761	5,485	5,582	3,175	1,133	24,135	48,003	29,926	102,064
00/01 Total	9,314	4,445	5,775	5,156	1,130	25,819	47,734	27,567	101,120
99/00 Total	10,629	4,195	5,590	4,055	984	25,453	48,760	26,972	101,185
Source: Foreign Agricultural Service YTD-Year-to-Date (www.fas.usda.gov)									

## U.S. Grain Inspected for Export



## Select U.S. Port Regions - Grain Inspections for Export (1,000 Metric Tons)

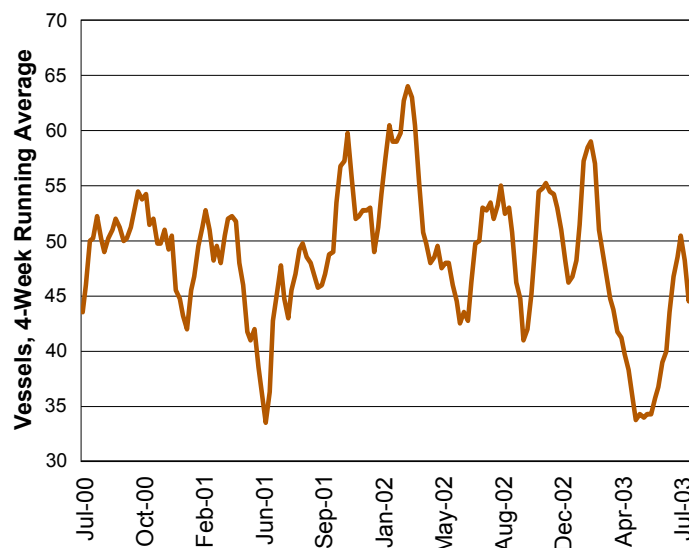
	Pacific Region			Mississippi Gulf			Texas Gulf			Port Region Total		
	Wheat	Corn	Soybn	Wheat	Corn	Soybn	Wheat	Corn	Soybn	Pacific	Mississippi	Texas
09/04/03	199	81	16	172	379	130	199	0	0	296	682	199
2003 YTD	5,701	3,581	2,752	3,769	19,226	10,780	4,098	536	56	12,035	33,775	4,691
2002 YTD	6,044	2,978	1,451	4,079	26,648	11,166	4,300	214	361	10,473	41,893	4,874
% of 2002 YTD	94%	120%	190%	92%	72%	97%	95%	250%	16%	115%	81%	96%
2002 Total	10,007	5,877	1,639	6,829	34,991	17,996	6,971	468	468	17,523	59,816	7,906

Source: Federal Grain Inspection Service YTD-Year-to-Date

The U.S. Exports Approximately One-Quarter of the Grain it Produces. On average, it includes nearly 45% of U.S. grown wheat, 35% of U.S. grown soybeans, and 20% of the U.S. grown corn.

Over 60% of these U.S. export grain shipments departed through Louisiana Gulf region in 2002.

**Gulf Port Region Grain Vessel Loading  
Past 7 Days**



#### Port Region Ocean Grain Vessels

	Gulf			Pacific Northwest	Vancouver B.C.
	<u>In Port</u>	<u>Loaded 7-Days</u>	<u>Due Next 10-Days</u>	<u>In Port</u>	<u>In Port</u>
08/28/03	30	50	64	12	10
09/04/03	31	45	68	12	8
2002 Range	(15..55)	(33..66)	(44..82)	(3..15)	(0..12)
2002 Avg	35	51	65	8	5

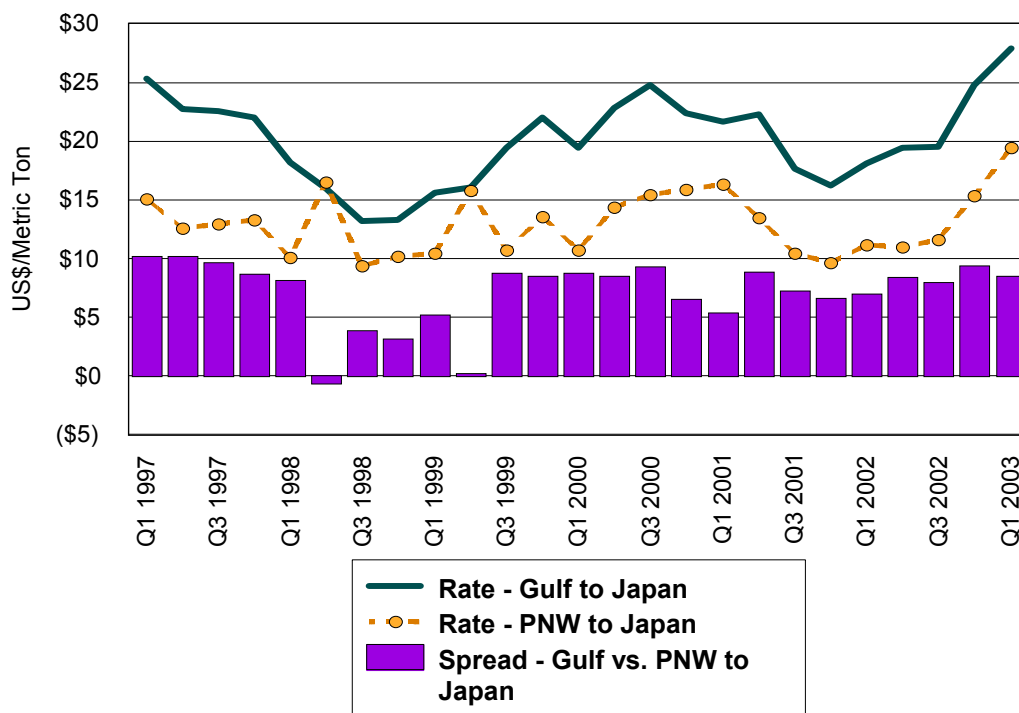
Source: Transportation & Marketing /AMS/ USDA

#### Quarterly Ocean Freight Rates

Average Rates & Percentage Changes, U.S. Dollars/Metric Ton

	2003 2 <sup>nd</sup> Qtr	2002 2 <sup>nd</sup> Qtr	% Change		2003 2 <sup>nd</sup> Qtr	2002 2 <sup>nd</sup> Qtr	% Change
<b>Gulf to</b>				<b>Pacific NW to</b>			
Japan	\$31.53	\$19.43	62%	Japan	\$19.33	\$11.03	75%
Mexico	-	\$46.92	-				
N. Europe	\$18.98	\$13.58	40%	<b>Argentina/Brazil to</b>			
N. Africa	\$21.75	\$15.84	37%	Med. Sea	\$24.50	\$16.98	44%
Med. Sea	\$21.88	\$12.62	73%	N. Europe	-	\$17.16	-
				China	\$32.50	-	-

Source: Transportation & Marketing/AMS/USDA



### Ocean Freight Rates for Selected Shipments - week ending 09/06/03

Export Region	Import Region	Grain	Month	Volume Loaded (Tons)	Freight Rate (\$/Ton)
U.S. Gulf	Egypt Med	Hvy Grain	Sep 2/5	60,000	\$21.50
U.S. Gulf	Japan	Hvy Grain	Sep 8/20	54,000	\$33.75
U.S. Gulf	Japan	Hvy Grain	Oct 1/10	54,000	\$34.20
U.S. Gulf	Japan	Hvy Grain	Sept 15/25	54,000	\$34.00
PNW	Bangladesh	Grains	Aug 1/10	5,000	\$44.00
River Plate	Philippines	Meals	Aug 12/20	40,000	\$35.25

Source: Maritime Research Inc.

Rates shown are for metric ton (2,204.62 lbs.=one metric ton), F.O.B., except where otherwise indicated; op=option

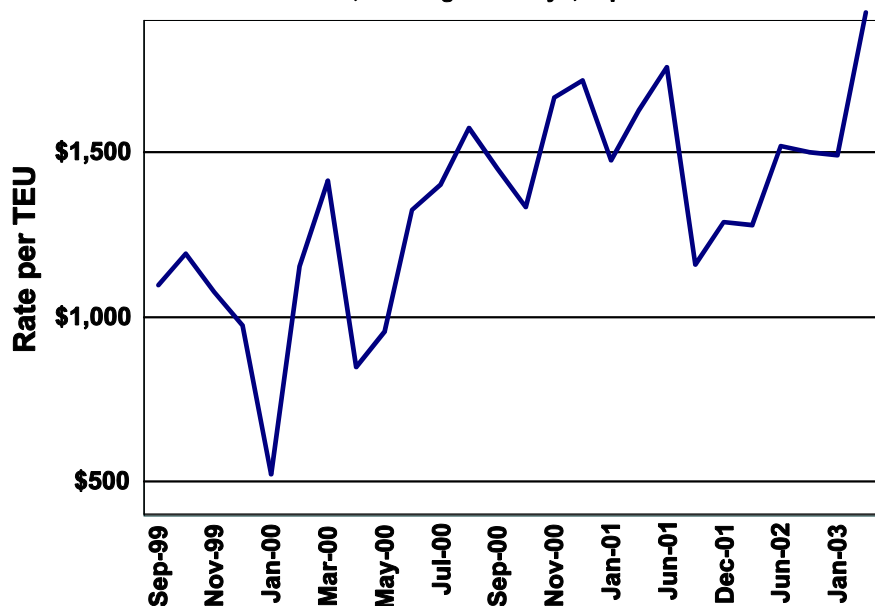
CONTAINER

Container Ocean Freight Rates

Average Rate per TEU, Weighed by Shipping Line Market Share

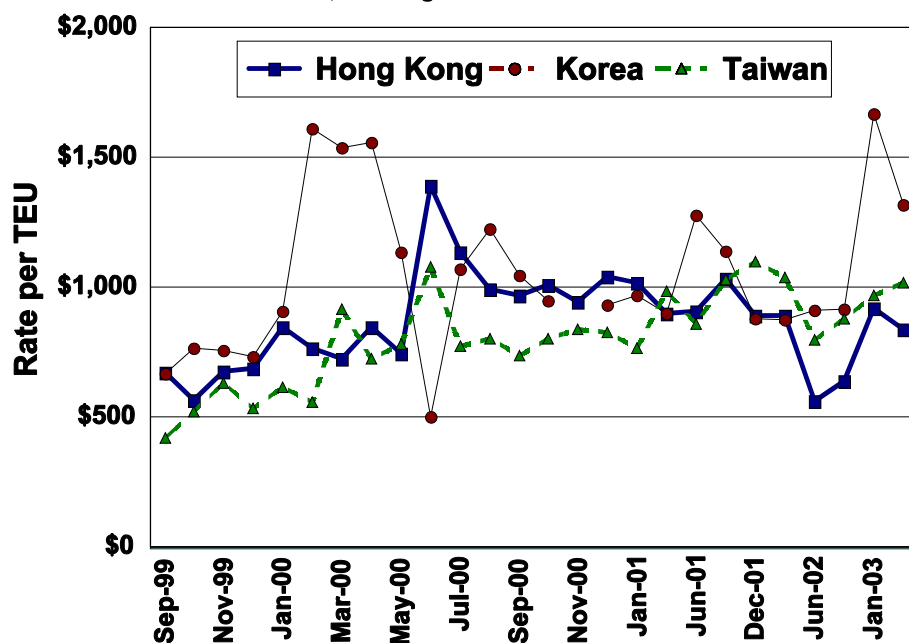
Source: Transportation & Marketing/AMS/USDA, Quarterly Updates

Container Rates - Soybeans  
Seattle, WA Origin to Tokyo, Japan



Approximately 420,000 MT of grain and oilseed exports were marketed via container in 2001. This volume increased 26% compared to 1997.

Container Rates - Feed Grain  
Seattle, WA Origin to Selected Destinations



<b>CANADIAN PORTS ACTIVITY</b>
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<b>Select Canadian Port Export Inspections</b> 1,000 Metric Tons, Week End Summary			
06/19/2003	Wheat	Durum	Barley
Vancouver	105	5	
Prince Rupert			
Prairie Direct	5		
Thunder Bay	18		
St. Lawrence	4,492	2,329	290
2001/02 YTD	10,666	2,963	961
2002/03 YTD	4,620	2,334	290
% of Last Year	43%	79%	30%
Source: Canadian Grains Commission, Crop Year 8/1-7/31			